README Document for Nimbus 1 Film Data HRIRN1IM

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Version 3.0

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Table of Contents

1.0 Introduction

Nimbus I was launched on August 27, 1964.

The Nimbus I Meteorological Satellite contained a High Resolution Infrared Radiometer (HRIR) designed to map nighttime cloud cover and surface temperatures from emission within the 3.5 — 4.1 micron atmospheric window.

HRIR data were acquired from a near-polar orbit during the period 28 August – 22 September 1964, after which a spacecraft malfunction occurred.

The orbit of the satellite can be characterized by the following:

- Perigee height of 423.2 km
- Apogee height of 932.7 km
- Anomalistic period of 98.31 min
- Inclination of 98.66 deg
- Argument of perigee 160.74 deg
- Perigee motion -3.11 deg
- Right Ascension of ascending node is 150.20 deg
- Motion of line of nodes is +1.06 deg

2.0 Image Files

The HRIRN1IM data product contains scanned negatives of photofacsimile 70mm film strips from the Nimbus-1. The images contain orbital nighttime (3.5 to 4.1 microns) cloud cover of the Earth's surface temperature. Each orbital swath picture is gridded with geographic coordinates and covers a distance approximately from the north pole to the south pole. The images are saved as JPEG 2000 digital files. About 7 days of images are archived into a TAR file.

The HRIRN1IM images can be ordered online using the REVERB/ECHO tool. The URL is:
http://reverb.echo.nasa.gov/reverb/#utf8=%E2%9C%93&spatial_map=satellite&spatial_type=rectangle&keywords=GES_DISC_HRIRN1IM_V001

The image files can be viewed with any application that supports the JPEG 2000 format.